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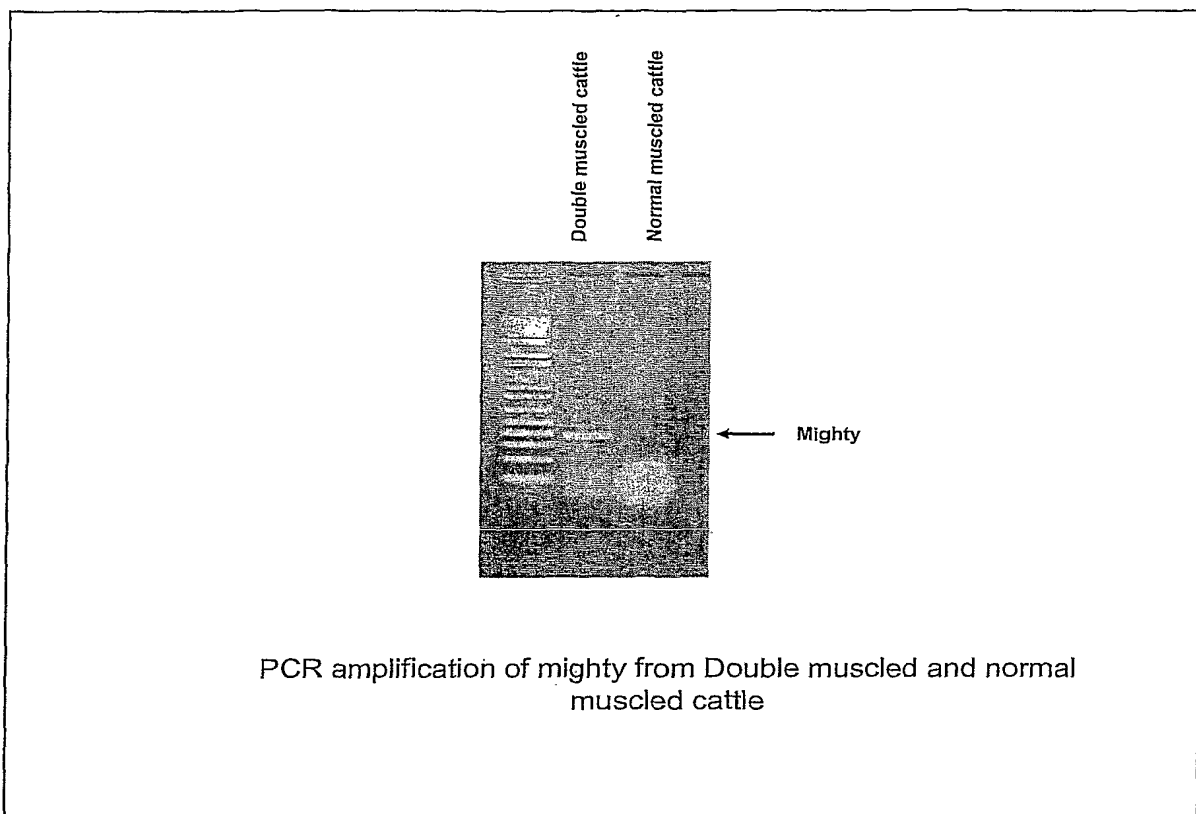
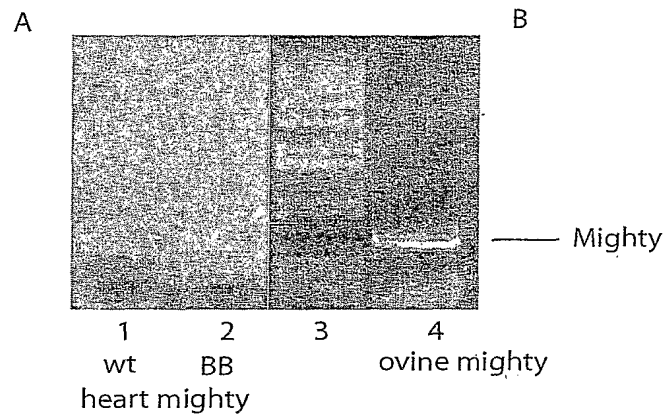


FIGURE 1

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Lane 1 PCR amplification of mighty from wild type bovine heart
Lane 2 PCR amplification of mighty from Belgian Blue bovine heart
Lane 3 1 kb plus DNA ladder
Lane 4 PCR amplification of mighty from ovine skeletal muscle

FIGURE 2

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CCACATTCACTGTGCAAGTCGTGGGGAAATACAGATGAATAAAGGCTTCCTTGTTATTCTCAAGGAATGTATG
 GTTTTGAAGCACAGTTAGACATATATTCAAATTACAGCTTCCTCCTTTAAACACTAATATTCCAAGGCACAC
 TCAATGTTTTTAAAGGATCACAGAGTGACTACCAAGACACGTAGCAAAACCCTACTAAGAGAGGTGTGTTTAA
 ATGACTACCCAAGGGACATACTTTTCAAGTCTTCTAATCGTTCACTTTGGATCTGTTTATACCACAAGAAAC
 AATTTACTTGATGCTCTTAGGTCCCTTTAAAAAATAAGCATCGTGAAGTGGCTTTTCATGTCCTTGGCTTTTA
 TTGAACATAGAAACAGCCATGCAAGCGGTCTTAAAGGCTTTATTACATCATTTGTTTCTTAATAAAGTCAT
 GACAGTCTACCTTTGGAATTAAAGTGATACACAAAATGATGGTCTGTGTCCTCTGGTGAAGTGGTTCCATTA
 CATATGACCTTATTTCATCATGACTATGGTTTCATTTTCTTTAGCCTTCAAGAAGCTCAGAAGTGAATTTTAA
 TTCAGTCTATTACCAAGCAACATAATTCCTGAGTTTTTTTTTTTTTAAAAAACTCTAATGTTTTATTCTAGATT
 TTAGTTTAAACCACGTTACATCTATATTGACAATAAATGTGCTAAAATAAACTTAACATGGGTAATGTGCCTA
 GGGAGGCTTGAATCCCAATATGGCAAAACAAACAGAAAACCAGCAATTTGGTATGCTGTGCTGTCTTATATTT
 TACAGAAATAAATGTGAAAGTATATGACCTATGTTATGATCTTTAAAGAGTTTGTAGAAACGGAAGAGGACTC
 AGAGAAAAGCAACCAAAACGAACAGGAGGAGAAGGAAGAAGAGGCGGAGAAGGAGGAGCAACATTCGCGATAC
 ATGCGCTTTATTGTCTAACCCCAAGTGTGTTGAAGTACTGTGACAGCGATCTTCGCAATTAGAAATGAGTAT
 CTAATAATTTGGACTGTTCTAGAAAAATCTGTTACAGAGATAATGTTAAAGCCAGATTACAGGAATCACAGCCA
 CTAATATACAAATAATTACAGAAAGGCTTTGAATGTGGAGGTGTTGTTCTGATGACTCTATTGATGTATTTGA
 AAGCACTGGAGTTACTCCCCAGGAAAATTACAACCAGAGTTCCTAAAGCAGAACCTCCCTGTTTTCTATTCA
 TTTGCTGAATATCAAAGCATTTCAGCCAACAGTACGGCAGACAATCTTCATTGACCCGAGGAAGAACCAG
 TCTGAGTTGCCAAGTCGGATGAGGAAGCCAAGTCCGAAATCAGCTATCAGGGGAAGTTCCTAACACCCTGGTA
 TCACTTGGTTAGACAGTTTAAGCCAGTGAGTTTTCTGGTAGGATTGTTTTTTGGTTTTTTTTTTTCTTTTA
 ATCCTTTTTTGCCTAACACATATCCATTTAGTGATCCGATTAATGGCCGGGTCATCTATGCCCCAAAATACATT
 CATTGTAAACACACCTCCCCCTCCAATTTTGGCCATCATTCGACAGGGTTCGTGGATTAAATAAAGTCTATCC
 TTAGATAACCCGGTTATGTTTGTGAAGATTTCCTGGGACTCAAGACAAAATCCTTTGATAACCCTTACAAATC
 AGCTCTTTTATCGGTACGCGGCCAAGGGAACCCGGGTCTCCAGGGTCTCTCCCATCTCCCGCCCCCGAGG
 CCCCTGCCGCGCAGGTGCGAAAGACCTCCAGGCCACTCCGGCAGAGAGCGTGAAGGGGGGGGCCCTGGGAG
 GGGCGGGGGCGGGGGTGTGTGCTAGGCGACCACGCTCTCCGCCAGACCGGCTACTTCTCCGCAGGGGGCG
 CCATGGGCCGAGCCAGGCTCGCGGGCCTCCGATCGGCTCTTTTCCGACTTCTTCCCTCTGCCGGGCGGT
 GGGGCACGCCCGTGACGTACAGGAGGCGGGGCAGCGCGGCTGCCGGGTGCCGGAGGCGCCATTGGAGCCG
 GCTTGGCTTGGGAGCCGTAGCTGAAGAGTTGGATC

Various transcription factor binding sites:

Ebox

CAATAAT

AP-1

TATA

E4BP4

GC box

E2F

FIGURE 3A

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CCACATTCACTGTGCAAGT**CGTGGGGA**AAATACAGATGAATAAAGGCTTCCTTGTTATTCTCAAGGAATGTATG
 GTTTTGAAGCACAGTTAGACATATATTCAAATTACAGCTTCCTCCTTTAAACACTAATATTCCAAGGCACAC
 TCAATGTTTTAAAGGATCACAGAGTGACTACCAAAGCACGTAGCAAAACCCTACTAAGAGAGGTGTGTTTAA
 ATGACTACCCAAGGGACATACTTTTCAAGTCTTCTAATCGTTCACCTTTGGATCTGTTTAT**AGGAGA**AAGAAA
 ACAATTTACTTGATGCTCTTAGGTCCCCTTAAAAAATAACCATCGTGAAGTGGCTTTTCATGTCTTTGGCTTT
 TATTGAACATAGAAACAGCCATGCAAGCGGTCTTAAAGGCTTTATTACATCATTGTTTCCTAATAAAGTCATG
 ACAGTCTACCTTTGGAATTAAAGTGATACACAAAATGATGGTCTGTGTCTCTGGTGAAGTGGTTCCATT**CAG**
ATAACACCTATTCATCATGACTATGGTTTTCATTTTTCTTTAGCCTTCAAGAAGCTCAGAACTGAATTTTAAAT
 TCAGTCATTTACCACCAAGATAATTGTGAGTTTTTTTTTTTTTAAAAAACTCTAATGTTTTATTTCTAGATTT
 TAGTTTAAACCACGTTACATCTATATTGACAATAAATGTGCTAAAATAAACTTAACATGGGTAATGTGCCTAG
 GGAGGCTTGAATCCCAATATGGCAAAACAAACAGAAAACCAGCAATTTGGTATGCTGTGCTGTCTTATATTTT
 ACAGAAATAAATGTGAAGTATATGACCTATGTTATGATCTTTAAAGAGTTTGTAGAAACGGAAGAGGACTCA
 GAGAAAAGCAACCAAAACGAACAGGAGGAGAAGGAAGAAGAGGCGGAGAAGGAGGAGGAAGATTGGAGATAGT
 ATGCCCTTTATTGTCTA**AGCCGA**AGTGTGTTGAAGTACTGTGACAGCCATCTTGGCAATTAGAAATGAGTA
 TCTAAATTTGGACTGTTCTAGAAAAATCTGTTACAGAGATAATGTTAAAGCCAGATTACAGGAATCACAGCC
 ACTAATATACAAATAATTACAGAAAGGCTTTGAATGTGGAGGTGTTGTTCTGATGACTCTATTGATGTATTTG
 AAAGCACTGGAGTTAC**TCCCAGG**AAAATTACAACCAGAGTTCCTTAAAGCAGAACCTCCCTGTTTTCTATTC
 ATTTGCTGAATATCAAAGCATTTTCCAGCCAACAGTACGGCAGAGAATCTCGATTGACCCGAGGAAGAACCA
 GTCTGAGTTGCCAAGTCGGATGAGGAA**GCCA**ACTGCCAAATCAGCTATC**AGGGGAAGTTCCTA**ACACCCTGG
 TATCACTTGGTTAGACAGTTTAAGCCAGTGAGTTTTCTGGTAGGATTGTTTTTTGGTTTTTTTTTTTTTCTTTT
 TAATCCTTTTTTGCGTAACACATATCCATTTAGTGATCCGATTAATGGCCGGGTCACTA**TCCCCAAA**ATACA
 TTCATTTGTAACACACCT**TCCCCTT**CCAATTTTGGCCATGATTGCACAGGGTTCGTGGATTAAATAAAGTCTAT
 CCTTAGATAACCCGGTTATGTTTGTGAAGATTTCTGGGACTCAAGACAAAATCCTTTGATAACCTTTAGAA
 TCACCTCTTTTATCGGTACGCGGCCAAGGGAACCCGGGTCTCCAGGGTCTCTCCCA**TCCCCCGCCCCG**AG
 GCCCTGCCG**CGCAGGTGCG**AAAGACCTCCAGGCCACTCCGGCAGAGAGCGTGAAGGGGGGGGCCCTGGGA
 GGGGCGGGGGCGGGGGTGTGCTAGGCGACCACGCTCTCCGCCAGACCGGCCTACTTCTTCCGCAGGGGGCG
 CCATGGGCGGAGCCCAGGCTCGCGGGCCTCCCGGATCGGCCCTTTTCCGACTTCT**TCCCCCTCTGCGGGCGGT**
GGCGCACGCCCCGTGACGTCACAGGAGGCGGGGCCAGCGCGGCTGCCGGGTGCCGGAGGCGCCATTGGAGCCGG
CTTGGCTTGGGAGCCGTAGCTGAAGAGTTGGATC

Various transcription factor binding sites:

MZF1

AML-1A

Sp1

E47

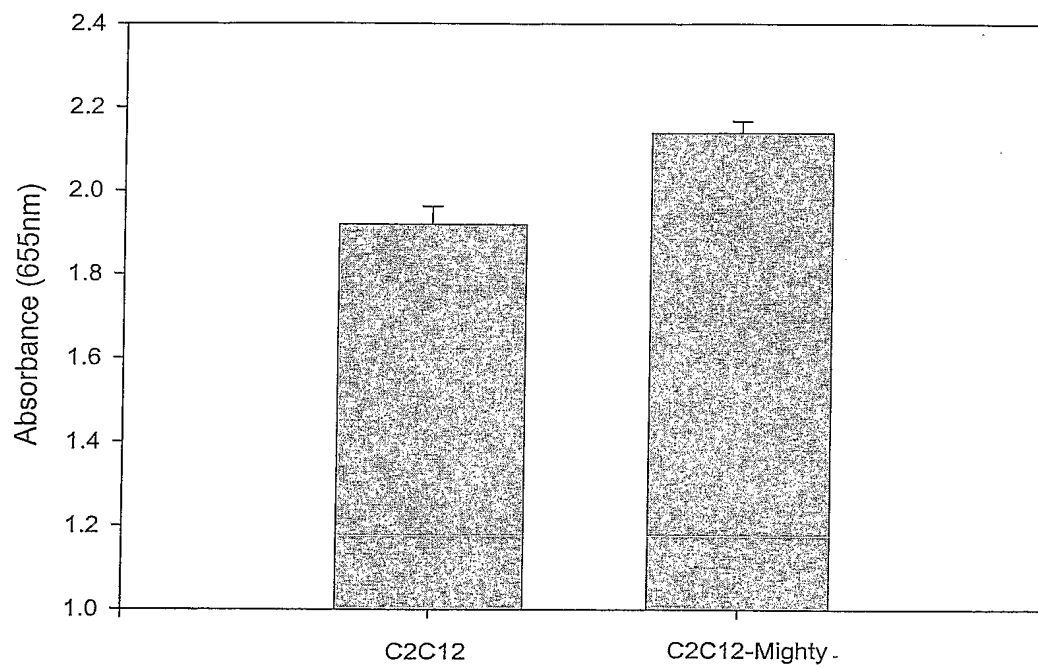
MyoD

NF-kap

FIGURE 3B

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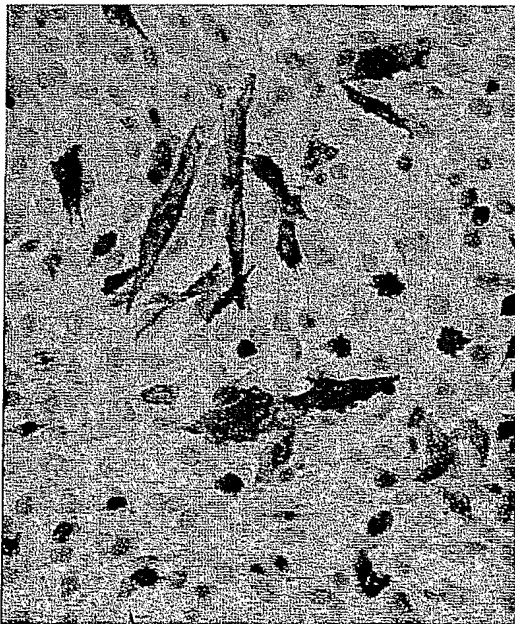
C2C12- Mouse Mighty Clone Proliferation Assay
72 hrs Proliferation

**FIGURE 4**

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Mighty over expressing
C2 Myotubes



Control C2 Myotubes

FIGURE 5

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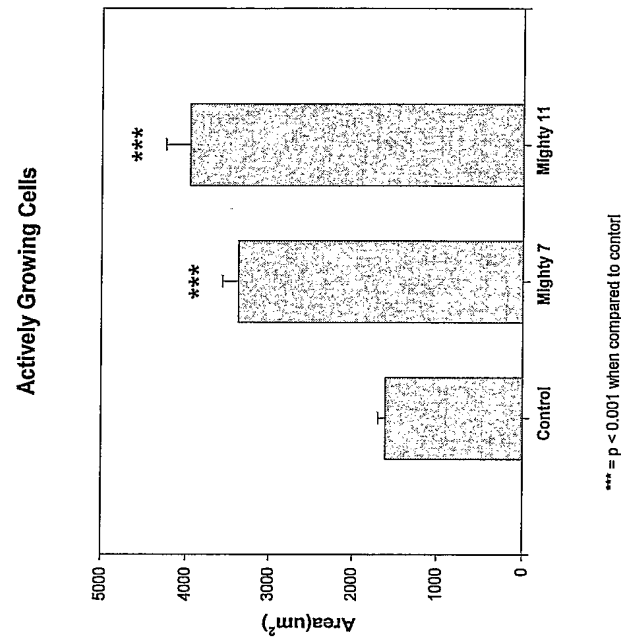


FIGURE 6A

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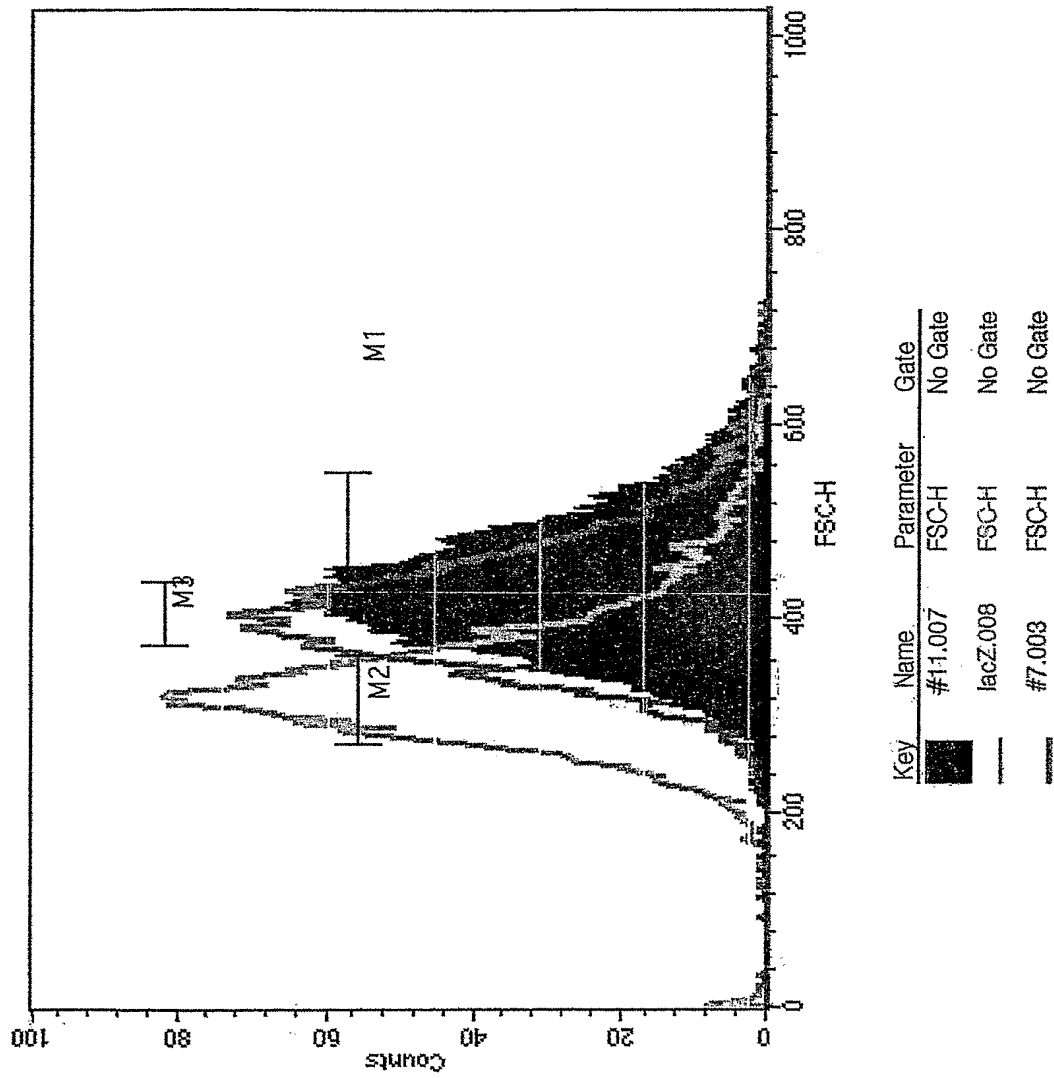
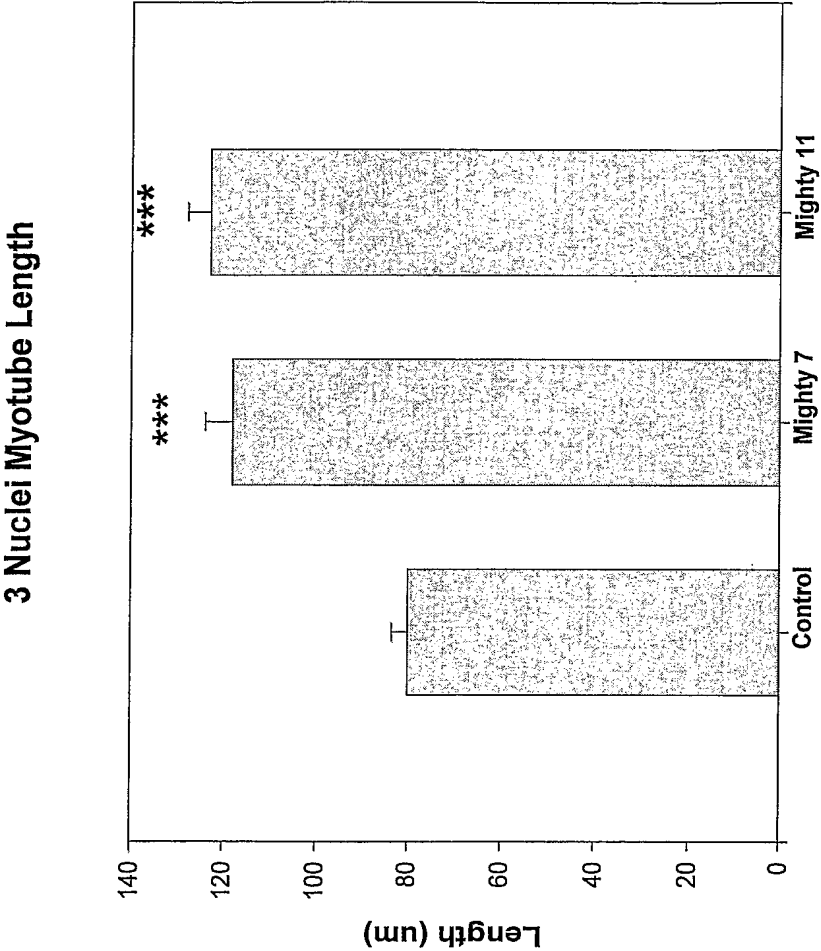


FIGURE 6B

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*** = p < 0.001 when compared to control

FIGURE 6C

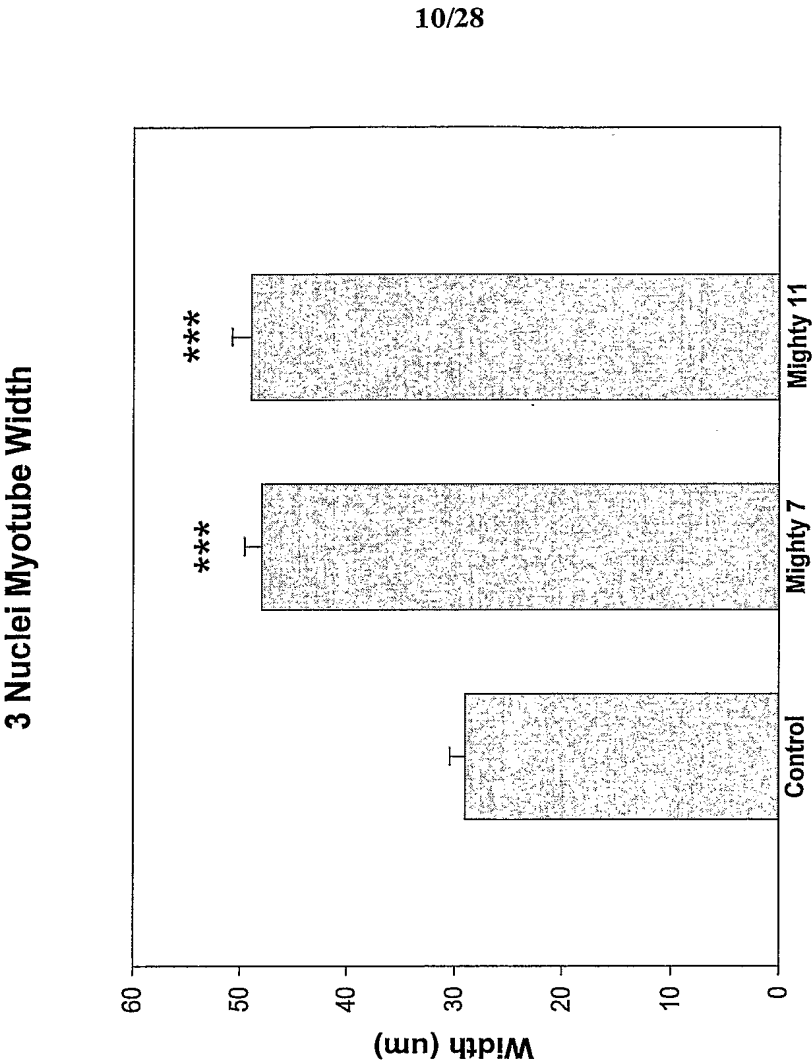


FIGURE 6D

3 Nuclei Myotube Area

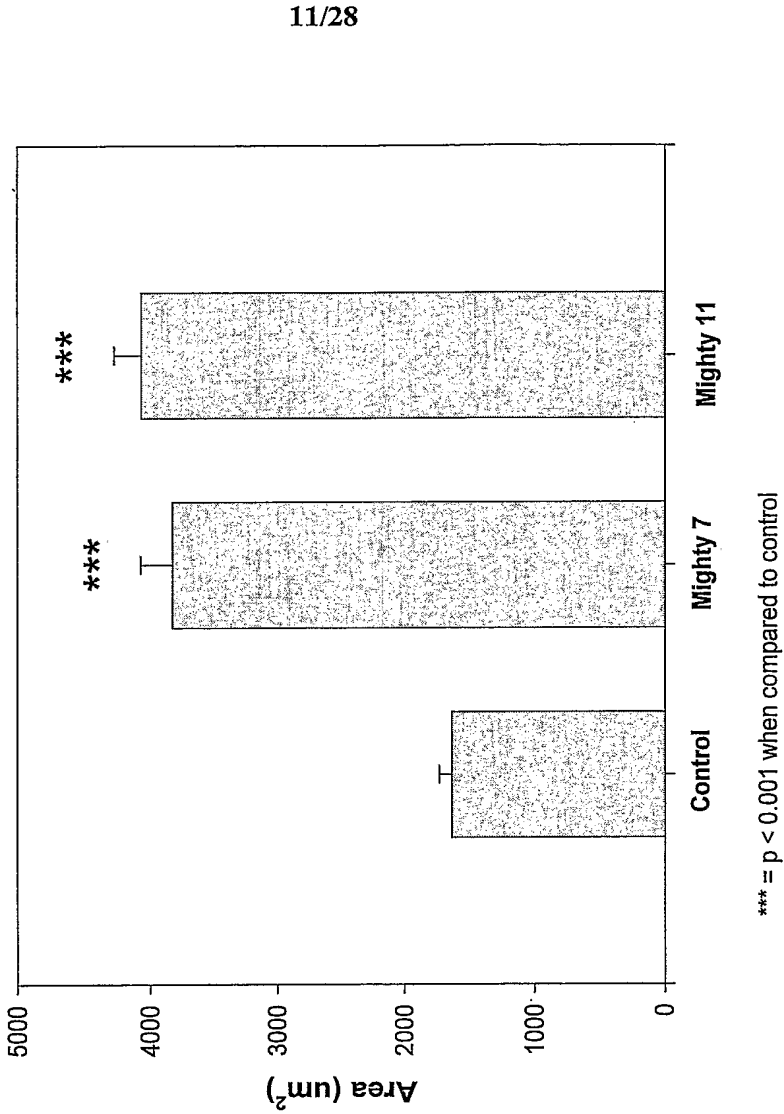
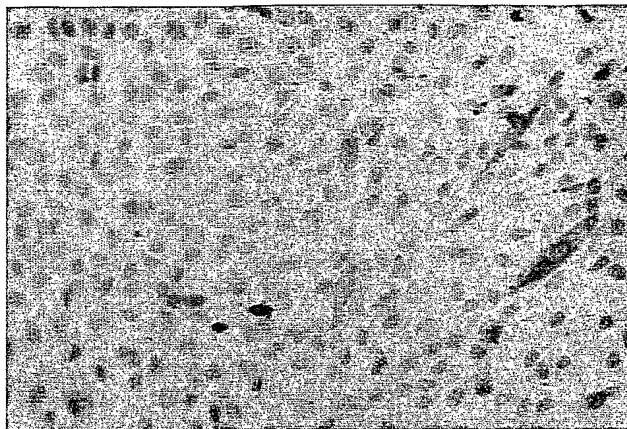
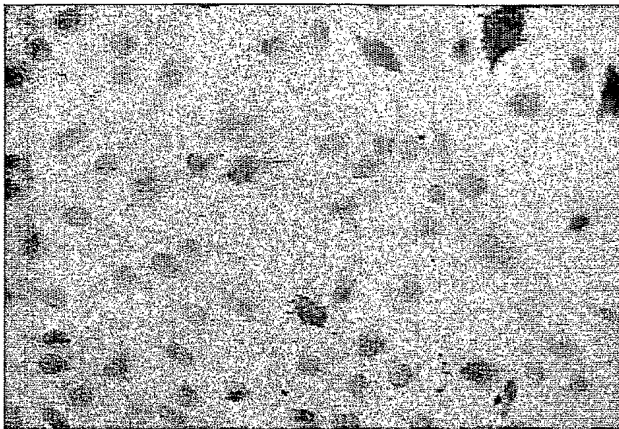


FIGURE 6E

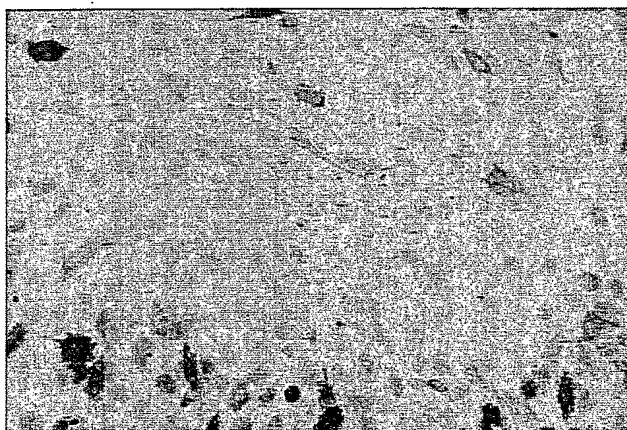
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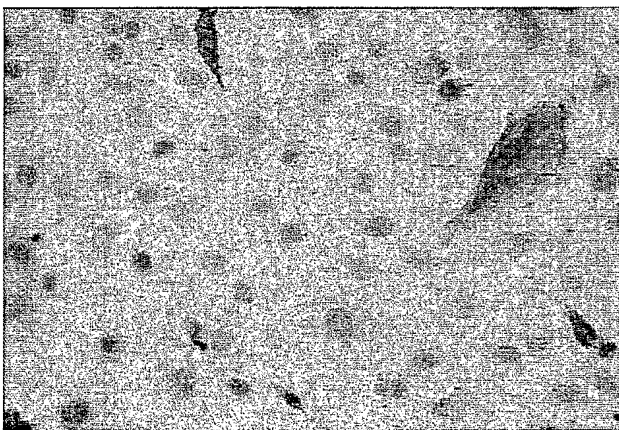
C2C12 - 48 hours differentiation



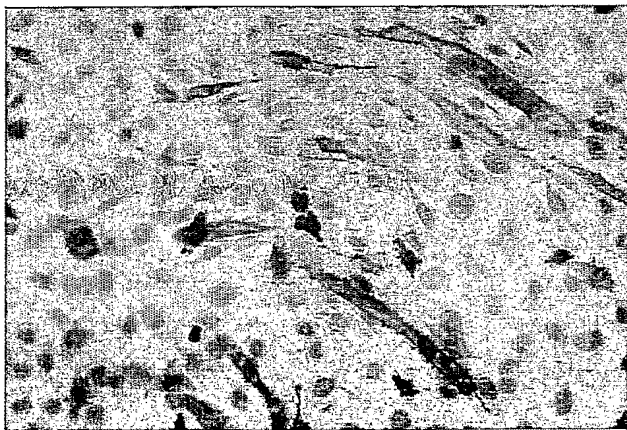
Clone 11 - 48 hours differentiation



C2C12 - 60 hours differentiation



Clone 11 - 60 hours differentiation



C2C12 - 72 hours differentiation



Clone 11 - 72 hours differentiation

FIGURE 7A

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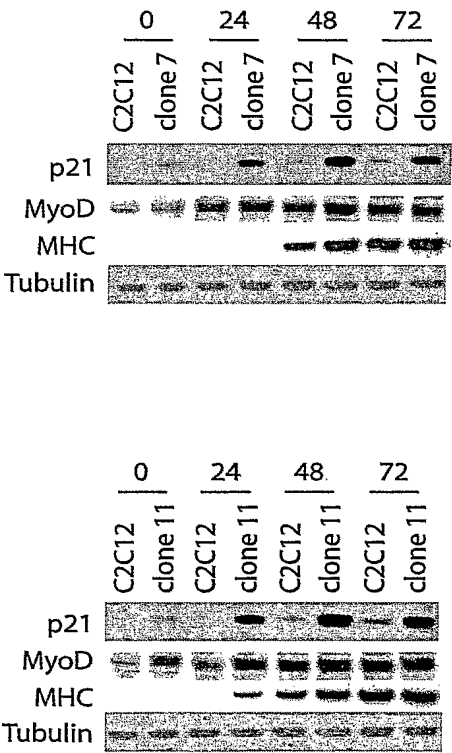


FIGURE 7B

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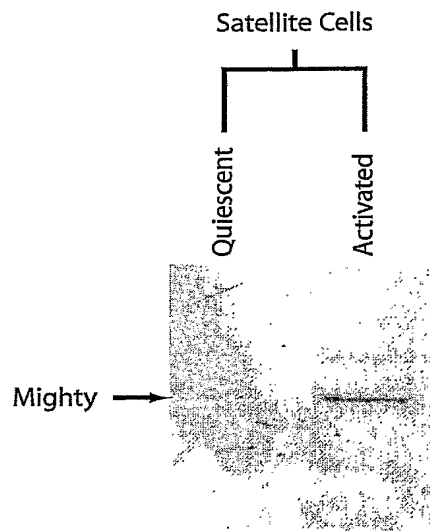


FIGURE 8

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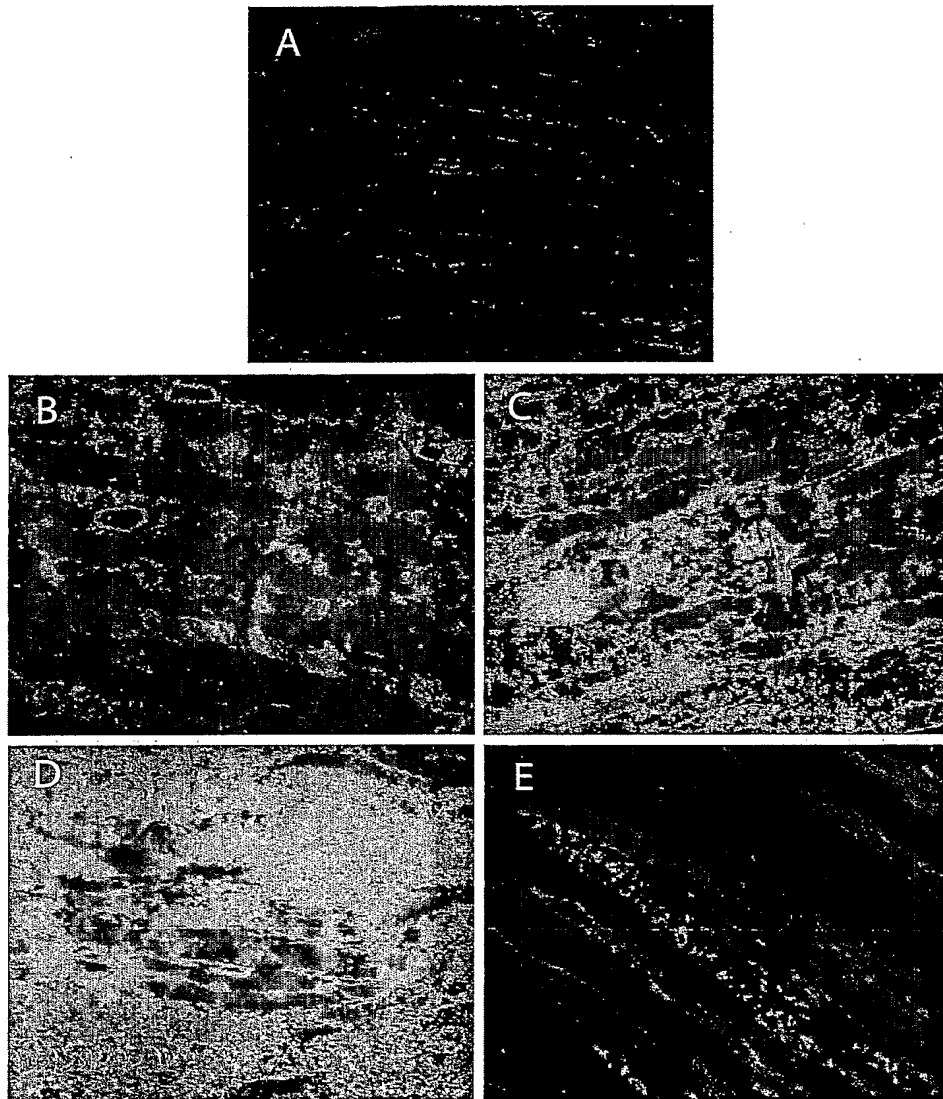


FIGURE 9

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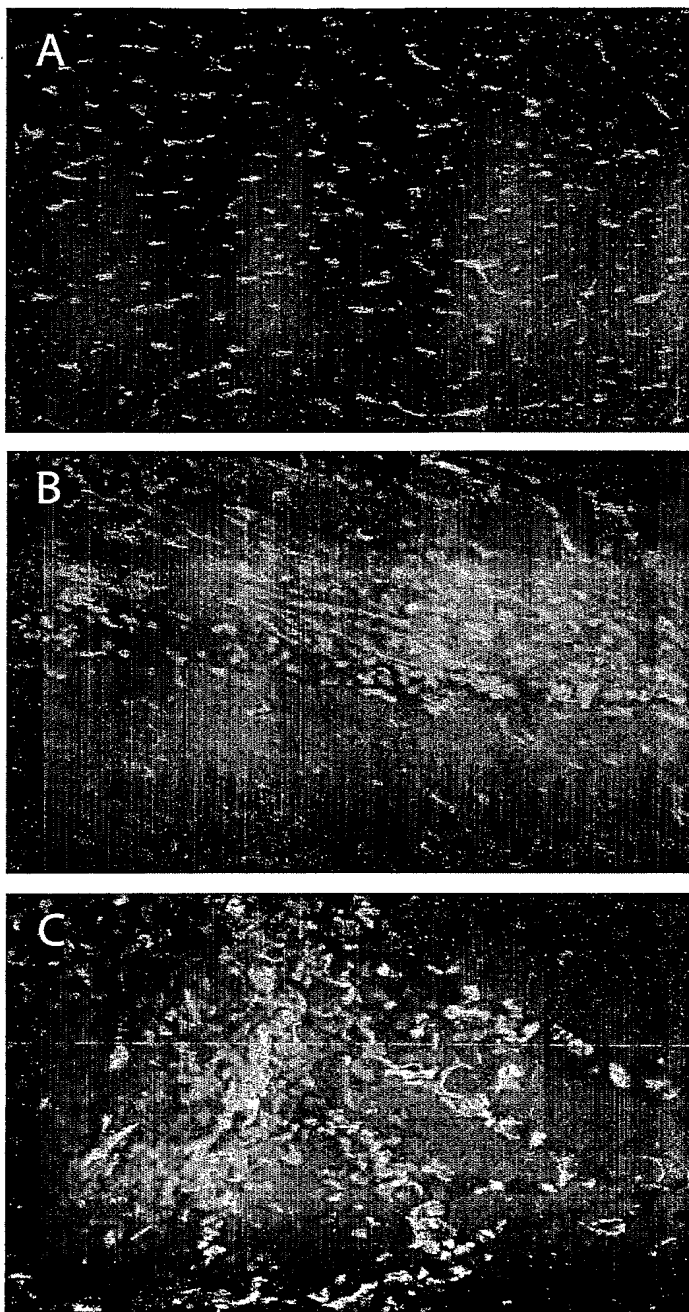
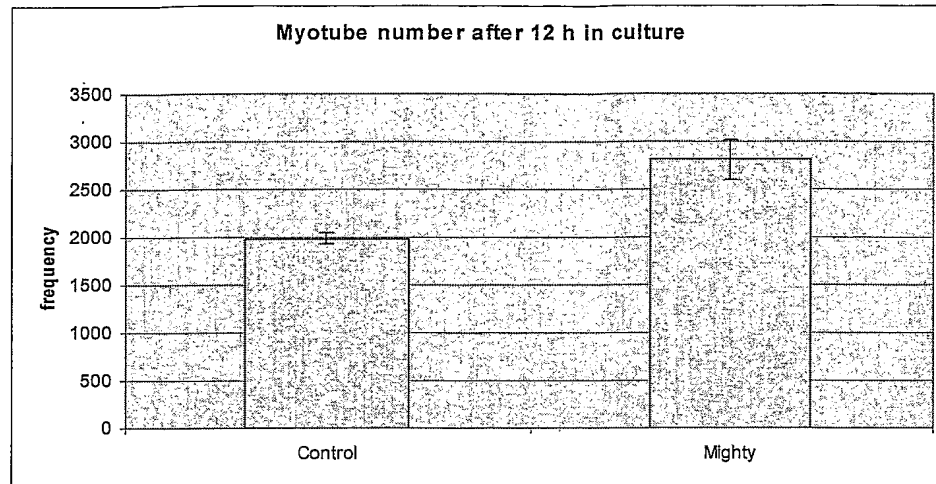


FIGURE 10

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**FIGURE 11**

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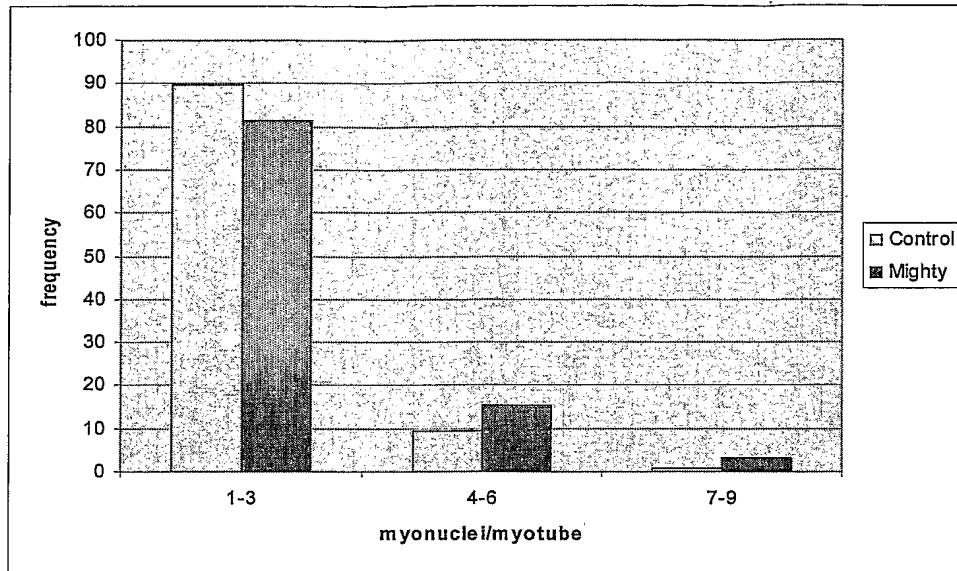


FIGURE 12A

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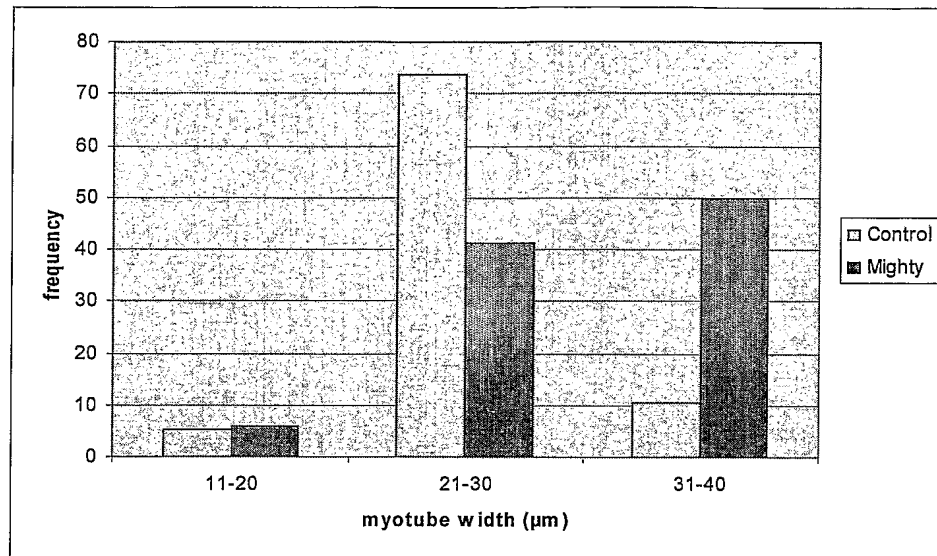


FIGURE 12B

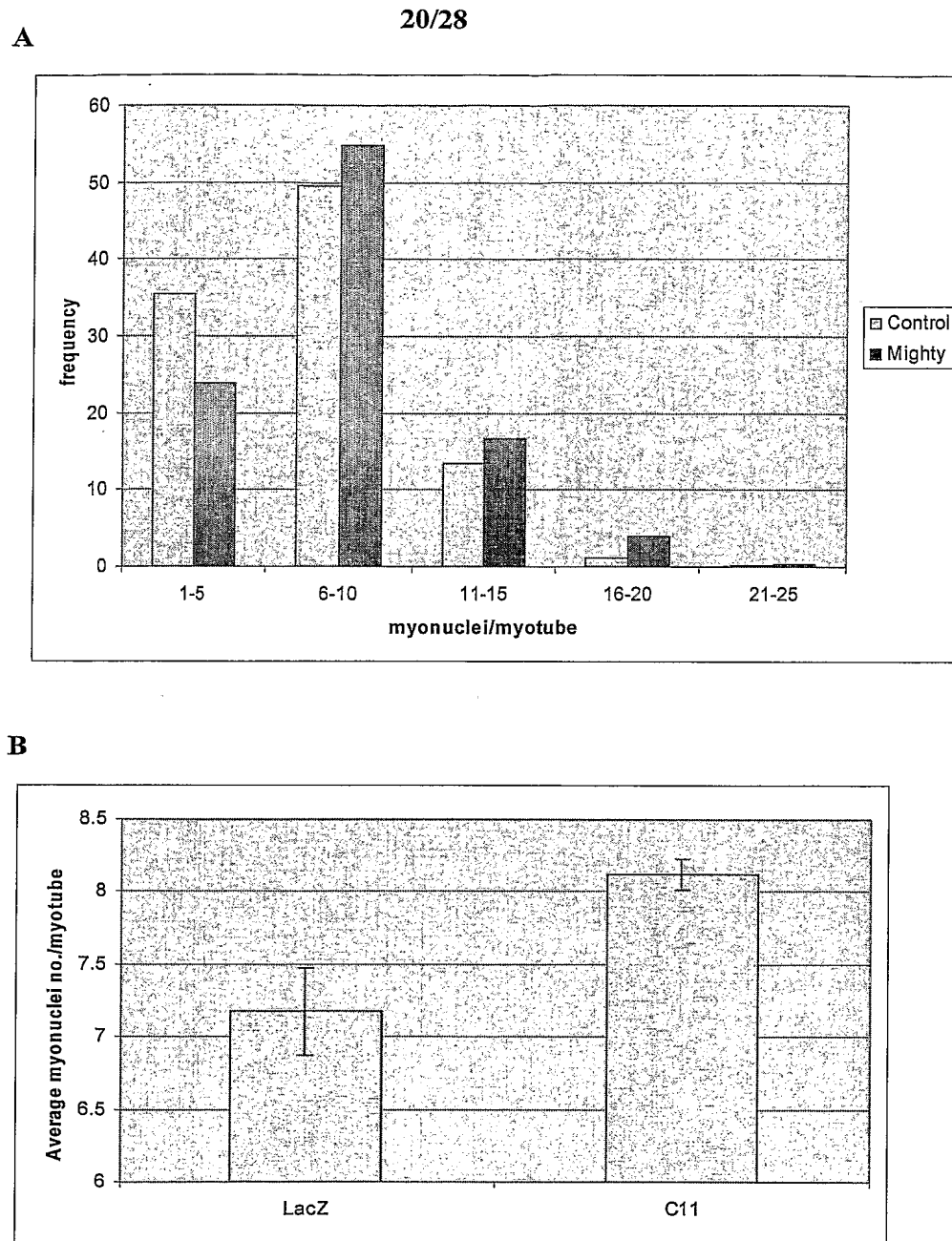


FIGURE 13

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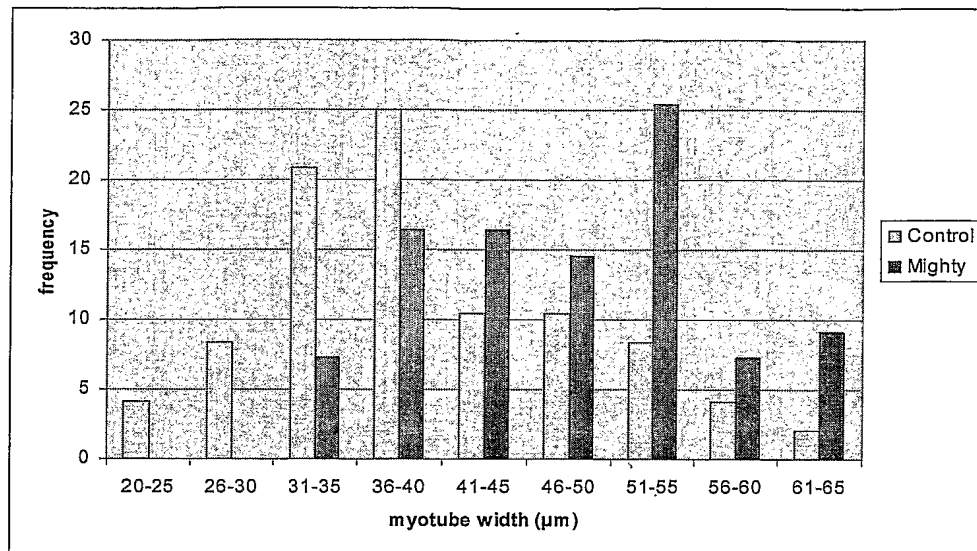


FIGURE 14

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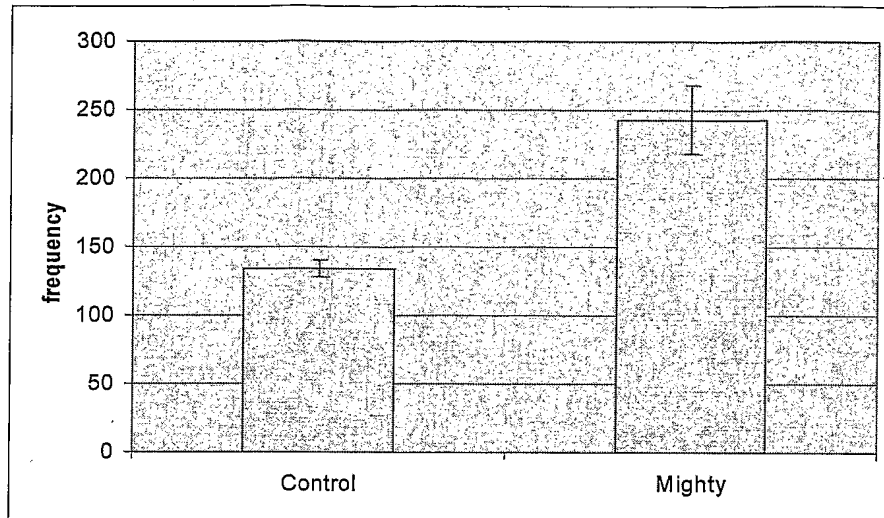


FIGURE 15

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Luciferase Activity of the 1kb mighty promoter in different cell lines

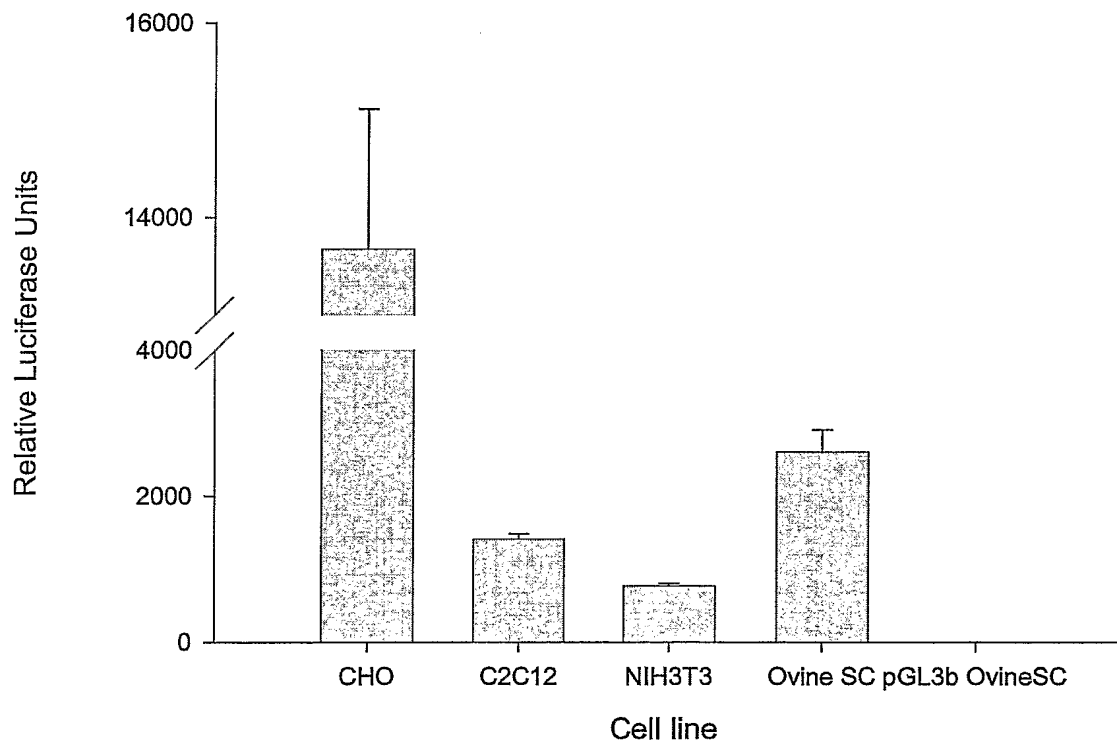


FIGURE 16A

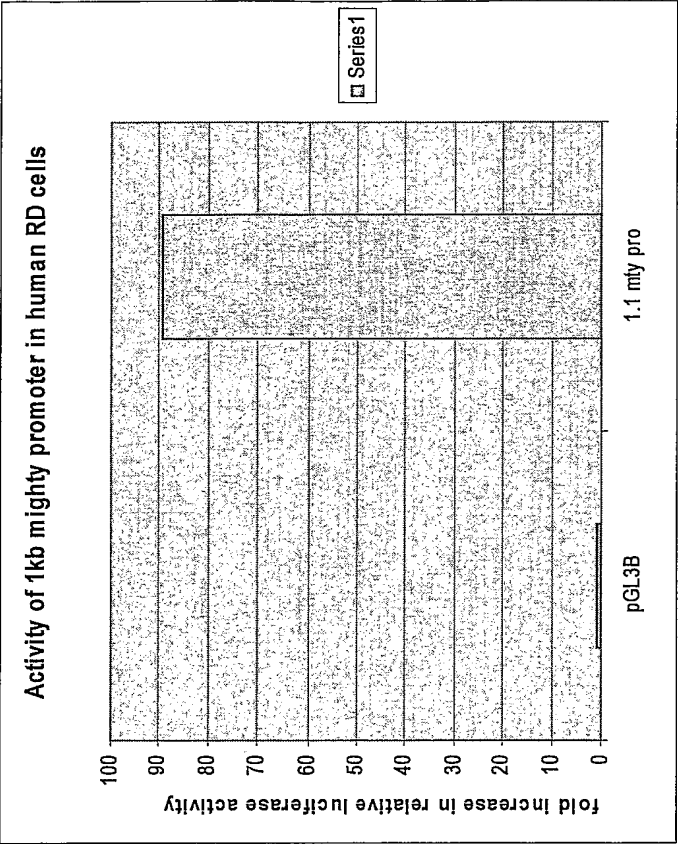
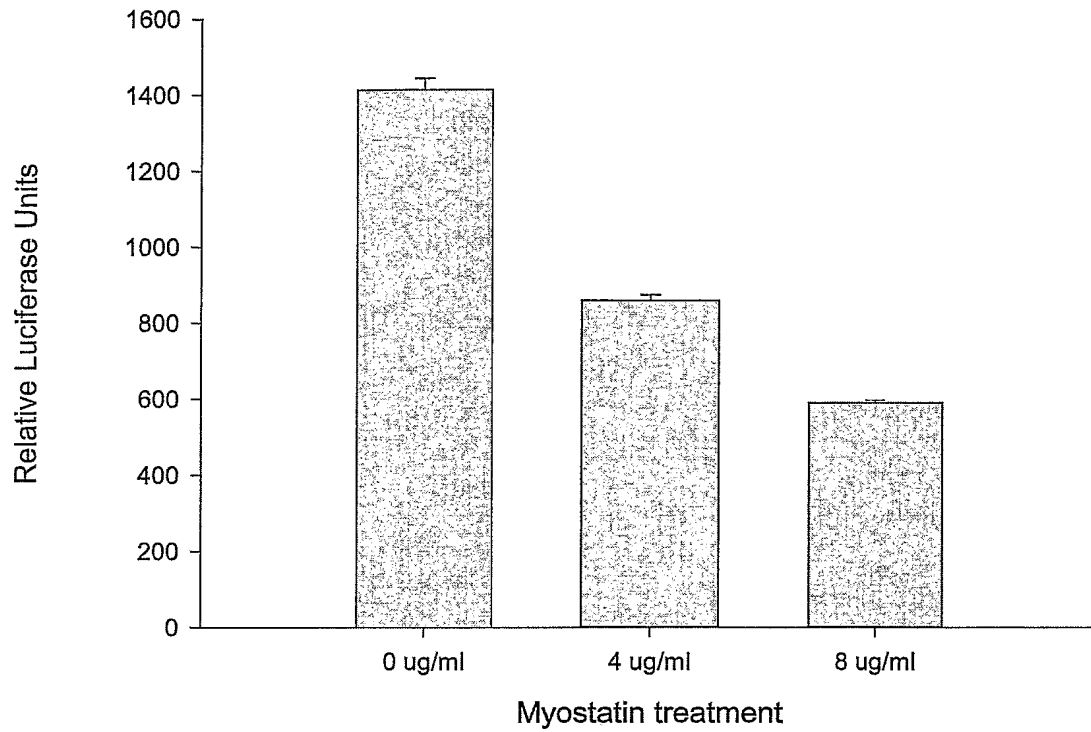


FIGURE 16B

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Luciferase Activity of the 1kb mighty promoter in response
to increasing myostatin concentrations

**FIGURE 17**

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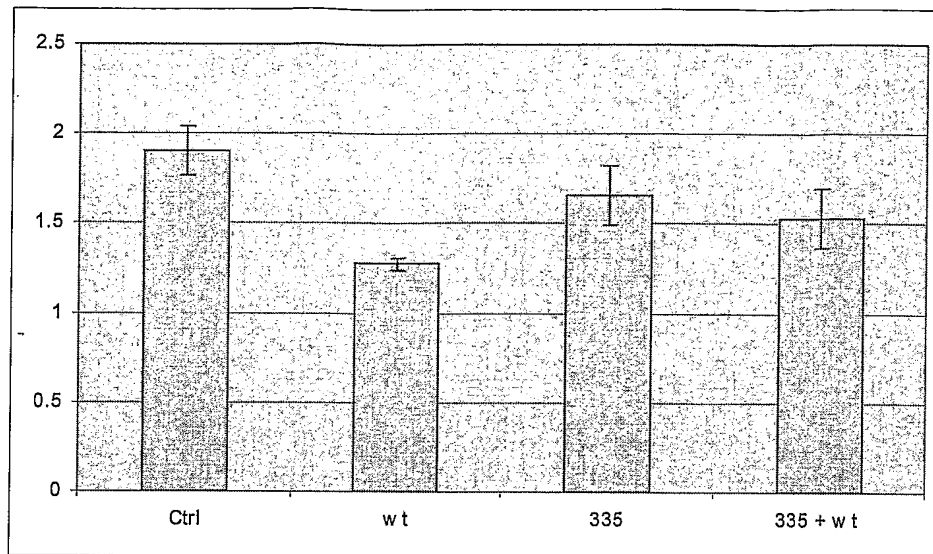
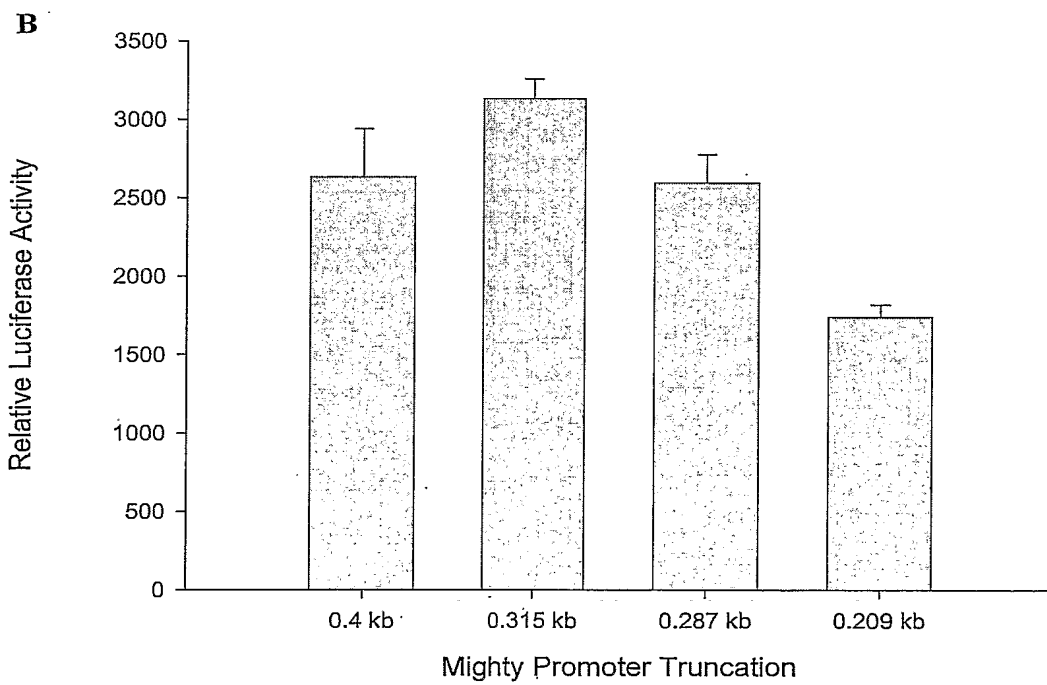
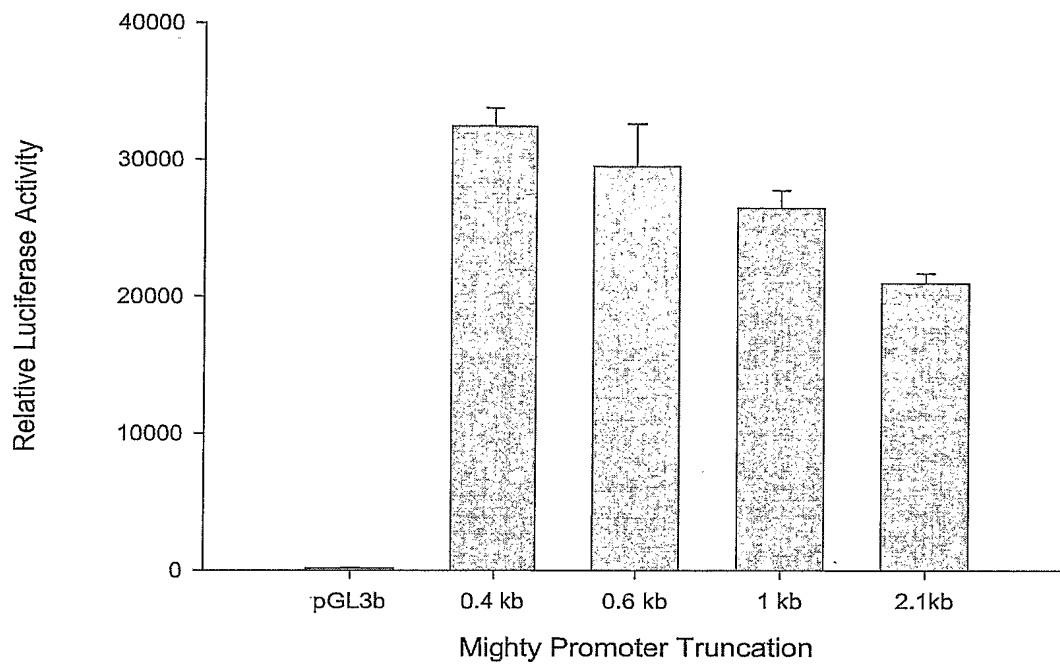


FIGURE 18

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A Mighty Promoter Truncations Normalised to beta-Gal Activity**FIGURE 19**

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FIGURE 20